

Title (en)  
IMAGE READING DEVICE

Title (de)  
BILDLESEVORRICHTUNG

Title (fr)  
DISPOSITIF DE LECTURE D'IMAGE

Publication  
**EP 2421238 A4 20130626 (EN)**

Application  
**EP 10764237 A 20100408**

Priority  
• JP 2010002574 W 20100408  
• JP 2009096580 A 20090413

Abstract (en)  
[origin: EP2421238A1] An image reading device includes: a CCD for reading an image on a document to output an image signal; a light source for switchingly emitting visible light and non-visible light; and lighting control means for controlling lighting periods of the light source. The lighting control means is adapted to perform control such that a first light source lighting period for applying non-visible light is longer than a second light source lighting period for applying visible light. The image reading device also includes splitting means for splitting the image signals outputted from the CCD into an image signal upon application of visible light and an image signal upon application of non-visible light.

IPC 8 full level  
**H04N 1/04** (2006.01); **G06T 1/00** (2006.01)

CPC (source: EP KR US)  
**G06T 1/00** (2013.01 - KR); **H04N 1/04** (2013.01 - KR); **H04N 1/0402** (2013.01 - EP US); **H04N 1/0446** (2013.01 - EP US)

Citation (search report)  
• [Y] US 6891645 B1 20050510 - NAKAMURA YOICHI [JP]  
• [Y] US 6023532 A 20000208 - KANESAKA YOSHINORI [JP], et al  
• [Y] US 2007205355 A1 20070906 - KIKUCHI MICHIO [JP]  
• [A] US 4661703 A 19870428 - ISHIKAWA NORIYOSHI [JP], et al  
• See references of WO 2010119650A1

Cited by  
EP3163858A1; CN110830669A; EP3197142A4

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)  
**EP 2421238 A1 20120222; EP 2421238 A4 20130626; EP 2421238 B1 20190102**; CN 102396214 A 20120328; CN 102396214 B 20150429; JP 2010251872 A 20101104; JP 5067638 B2 20121107; KR 101299813 B1 20130823; KR 20110135964 A 20111220; TW 201119345 A 20110601; TW I459794 B 20141101; US 2012127543 A1 20120524; US 9294651 B2 20160322; WO 2010119650 A1 20101021

DOCDB simple family (application)  
**EP 10764237 A 20100408**; CN 201080016506 A 20100408; JP 2009096580 A 20090413; JP 2010002574 W 20100408; KR 20117023876 A 20100408; TW 99111462 A 20100413; US 201013263772 A 20100408